Some Notes on Naturalness paper, June 10, 2024

We´re making good progress I think!

I liked your changes/specifications. I also think that our discussion 29 May was highly useful, regarding the deviation / human likeness issues in particular, and relation to authenticity.

* I also liked your visual sketch Sascha in your mail from 29.5. after our meeting – and particularly the considerations about the levels at which Naturalness works in respect to a link with voice perception theory.
* Some thoughts on that though:

1. In a way, human likeness-based naturalness could almost be the first step in our processing levels. It would correspond to a stage you could also call “human voice detection”. NB. Pascal B. himself was quite intriguied by this early on, and tried to show it with ERPs / the FTPV response (Charest et al., 2009) around 200 ms.
2. Deviation-based naturalness, as you point out Tine, requires to specify the reference, and also the type of deviation. What I like in Sascha´s sketch is that this way deviation-based naturalness could be a pointer to
   * Voice pathology (perhaps when at the level of structural encoding a voice deviates from the norm for a healthy human vocalization)
   * Emotional authenticity (perhaps when at the level of affect analysis the voice deviates, slightly, from the norm for the vocal pattern for a specific emotion)
   * Identity authenticity (perhaps when at the level of identity analysis/voice recognition units the voice deviates, slightly, from the norm for the vocal pattern for that specific known speaker)
   * …

References

1. Charest, I., Pernet, C. R., Rousselet, G. A., Quinones, I., Latinus, M., Fillion-Bilodeau, S., Chartrand, J. P., & Belin, P. (2009). Electrophysiological evidence for an early processing of human voices. *Bmc Neuroscience*, *10: 127*, 1-11. ISI:000271324800001 (NOT IN FILE)